Starling
Environmental
Limited

67 Chorley Old Road, Bolton, Greater Manchester, BL1 3AJ
www: starlingenvironmental.co.uk
Tel: 07989 73122

NOISE MANAGEMENT PLAN

for

Enviro Skip Hire Ltd,
Norton Way
Sandbach
Cheshire
CW11 3WL

Report No 161/5A

May 2026

For

ENVIRO
SKIP HIRE

DOCUMENT CONTROL

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PREPARED BY	C Gettinby
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DRAWINGS

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Drawing No 161/06A – Receptors

1. INTRODUCTION

1.1 Site Description

1.1.1 The site is located off Norton Way, Sandbach, Cheshire, CW11 3WL. The national grid reference for the site is SJ 73701 61138. The location of the site is shown on Drawing No 161/01.

1.1.2 The site is located in a built up area of Sandbach. It is situated on an industrial estate off Norton Way and bordered by industrial units to the north, east and south. Beyond the industrial estate are residential properties. The western boundary is bordered by a strip of woodland approximately 8 to 10 m wide and beyond that the Crewe to Manchester railway line. Across the railway, further west, is another strip of woodland and then residential properties.

1.1.3 Access to the site is from Norton Way via a set of palisade security gates, with an proposed new additional access off Station Road. The site is bound by palisade fencing and concrete panel walls. The gates are locked outside working hours and the site is covered by 24 hour CCTV.

1.1.4 Features include several waste processing and storage buildings, concrete block bays for external waste storage, an office building, garage/workshops, weighbridges, welfare facilities and parking area. The operator will install a CDE wash plant comprising of an Evowash sand classification and dewatering system, Aggmax scrubbing and classification system, logwasher, filter press, overband magnet, Aquacycle thickener and sludge tank. Site features are shown on the Site Layout Plan, Drawing No 161/02B.

1.1.5 The site is surfaced with concrete which drains to foul sewer. Waste processing is carried out both inside the existing buildings and within the yard. The waste processing buildings are open fronted 3-sided buildings to allow access for vehicles and plant.

1.2 Maintenance and Review of the NMP

1.2.1 The operations manager (OM) is responsible for the NMP and ensuring people are trained. The daily requirements of the NMP will be delegated to the site manager (SM).

1.2.2 The NMP will be stored in the site office.

1.2.3 The NMP will be reviewed if there are any changes to operations, site conditions or if complaints are received. If none of these occur the NMP will be reviewed at least once per year.

1.2.4 Staff will be trained on how to implement the NMP at induction and then topped up with tool box talks, approximately twice throughout the year. Training is delivered by the management team. Staff training records are maintained on site.

1.2.5 The OM will maintain records of complaints and associated investigations due to noise on site.

1.2.6 The SM may delegate noise monitoring to a senior operative. Results will be reported back to the SM for review. The SM has control over the site and can implement any actions required such as shutting down machinery, organising repairs or more detailed investigations.

1.3 Relevant Sector Guidance on which this NMP is Based

1.3.1 This NMP has been prepared following the EA template (V1.1 26.5.2022) using the following guidance:

- Noise and vibration management: environmental permits (updated 31 January 2022)
- Non-hazardous and inert waste: appropriate measures for permitted facilities (updated 1 August 2023)

2. ASSESSMENT OF RECEPTORS

2.1 Receptor List

2.1.1 The location of the site in relation to potential receptors is shown on Drawing No 161/06A and listed in Table 1 below.

Receptor	Direction from Site	Approximate Distance from Site at closest point (m)
Domestic Dwellings		
Elizabeth Close	E	10
Haliwell Court	W	40
Cestria Close	E	80
Cedda Place	SE	85
Industrial/Commercial Premises		
James Lynch and Sons Transport	S	Adjacent
White Self Storage Cheshire	NW	Adjacent
The Crane Centre	SE	Adjacent
Oniti Home care	N	Adjacent
Train Fitness Studio	N	50
Springvale Industrial Estate	S	95
Somerford Equipment Limited	S	95
XL Engineering Ltd	S	100
Moss Lane Business Centre	S	105
Aggregate Industries Concrete	S	355
Sandbach Commercial Dismantlers	S	540
Water Features		
Trent and Mersey Canal	W	350
Fodens Flash (the moat)	W	590
Plex Flash	NW	600
Watchlane Flash	SW	640
Amenity/Recreation		
Elworth Gardens and Play Area	N	270
Ettily Heath Playing Fields	S	750
Highway/Major Road or Transport Link		
Manchester to Crewe railway line	W	10
Sandbach Railway Station	N	150
Middlewich Road A533	N	290
Ecological Sites		
Priority Habitat Woodland	NW	64
Sandbach Flashes SSSI	W	590
Educational Institutions		
Elworth CE Primary Schol	E	300
Elworth Hall Primary School	NE	650
Hospitals/Care Homes		
St Stephens Care Home	E	90
Turnpike Court Care Home	E	565

Table 1: Potential Receptors Within 1 km

2.1.2 The closest noise sensitive receptors are the domestic dwellings off Elizabeth Close, behind Station Road. These are approximately 10 m from the new entrance point off Station Road, but they are over 150 m from the closest waste processing area.

2.1.3 Haliwell Court to the west is the closest residential area to the processing operations but this is separated from the site by the railway and the double strip of vegetation screening, with 8-10 m of woodland on each side of the railway. This will provide some natural noise dampening.

3. NOISE SOURCES AND PROCESSES

3.1 Noise impact assessment (NIA) conclusion

3.1.1 Noise and vibration risks associated with the proposed changes have been assessed by a Noise Impact Assessment, Report No J005693-9535-RDC-2 by specialist consultants PDA Limited. Noise generated by the proposed changes is calculated to be between -2 and +2 dB above background at the surrounding receptors, which is no significant effect.

3.1.2 The NIA is contained in Appendix D and the findings are summarised as:

Noise surveys have been conducted at locations representative of the nearest noise sensitive properties to the site. The results of the surveys have been used to assess the background sound at the nearest noise sensitive receptors (during a period when operations at the Enviro Skip Hire site were halted) and to determine the likely impact of the new wash plant and reconfiguration of the site layout in terms of noise.

The assessment has been undertaken following the guidance contained within BS4142:2014+A1:2019 – 'Methods for rating and assessing industrial and commercial sound'. We have measured the sound levels generated by the existing operations on-site and calculated the impact at nearby noise sensitive properties of the existing permitted operations. We have thenundertaken a further modelling exercise to determine the likely noise levels from the proposed operation of the new wash plant including the increase in throughput, and also calculated the cumulative impactof the existing operations plus the new wash plant (including the proposed changes in the layout of the site, and proposed changes to boundary treatments).

The impact of the proposed increase in throughput and new wash plant, after context is taken into account, is positive (reduction in overall impact) at houses off Station Road, and neutral (no change in impact) at houses off Moss Lane and west of the railway line. As such, the overall impact of the proposal on residential amenity is low.

3.1.4 The site will be operated according to the appropriate measures outlined in this management plan.

3.2 Noise Sources

3.2.1 Table 2 below details the noise sources on site.

Noise source	Sound power level (LwA)	Measurement distance (m)	Operational conditions	Additional comments
Grab sorting material	101	10	Operating daily in transfer station area during day time hours only. Permitted operating hours are: Monday to Friday 07:00 – 17:30 Saturday 08:00 – 12:00	On site measurement
Excavator sorting material	99	10		
Shredder	104	10		
Crusher	114	10		
Screen and blower	102	10		
Loading shovel maintaining stockpiles	96	10		
Loading shovel loading aggregates	102	15	Operating in the wash plant area	On site measurement
HGV tipping	102	10	Operating in both the wash plant area and in the transfer station area	On site measurement
HGV movement	89	Library measurement		Library measurement
Proposed wash plant	110.4	100 m	Operating during daytime permitted hours only	Data supplied by CDE (wash plant supplier)

Table 2: Description of noise emitting processes
Note: sound power levels as reported in the NIA. Measurement distances provided by PDA Ltd.

3.3 Overview of Noise Processes and Emissions

3.3.1 The proposed layout is shown on Drawing No 161/02B. This shows the storage and processing areas as well as fixed plant. The proposed noise emitting processes carried out are:

- Operation of crusher, crushing waste materials to form reusable aggregates
- Operation of wash plant, to wash and grade waste materials into aggregates including sand and stone
- HGV movements of trucks delivering waste material and removing processed materials
- Operation of loading shovels, moving waste and products on-site.
- Operation of excavator and grab sorting transfer station materials
- Operation of screen and blower sorting transfer station materials
- Operation of shredder for residual waste after sorting of transfer station materials

3.3.2 The locations of the proposed wash plant are shown on Drawing No 161/02B. These are fixed noise emission points.

3.3.3 The HGVs will move up and down the full length of the site, delivering and removing material from the storage areas. The loading shovels will operate in the waste storage and processing areas.

3.3.4 The activities that create the most noise is the fixed plant for washing and crushing. The shredder, screen/blower, sorting plant, loading plant and vehicle movements also generate significant noise. The shredder will no longer be required by the end of 2026 as shredding of residual waste will not be required for the take-off of residual waste. This will reduce the noise sources on site.

3.3.5 The site is situated on an industrial estate which has experienced encroaching residential development since operations began in 1992. As the industrial estate was in place before the residences, the residents will be habituated with the noise from the site as well as the other industrial operators and the railway. It also is assumed that the properties were constructed with noise mitigation features as they were constructed next to an industrial estate.

3.3.6 Noise attenuation barriers have been proposed to reduce the noise emissions to the surrounding area.

4. CONTROL MEASURES AND PROCESS MONITORING

4.1 Appropriate measures / Best available techniques (BAT)

4.1.1 Table 3 details the appropriate measures and BAT applied to each of the noise sources

Activity which produces noise	Operational Hours / days	Control measures (Appropriate Measure / BAT)	Contribution to overall impact	Action taken if outside optimum process parameters
Fixed plant processing material;	07:00 – 17:30 Monday to Friday 08:00 – 12:00 Saturdays	Noise attenuation barriers will be constructed around the perimeter of the site as follows detailed in section 6.3 of the NIA contained in Appendix D. All fixed plant and mobile plant will be checked on start up by the operators and defects, including noise generation, are recorded and reported. Any loose covers or noisy parts will be rectified. Rectifying action is recorded in the site diary. Routine inspections and servicing schedules are in place for plant and equipment. A preventative maintenance plan is also be implemented for all plant. No idling policy, plant is switched off when not in use. Daily noise monitoring and investigation of unusual or unexpected noise	High	Cease operation and investigate reasons for elevated sound levels.
HGVs delivering and removing material		Measures detailed above and: Vehicles owned by the operator will be subject to scheduled servicing and maintenance.	Medium	Cease operation and investigate reasons for elevated sound levels.
Loading shovels moving material between storage areas		Measures detailed above and: When plant is replaced “Low noise” options will be considered. Mobile plant is serviced based on hours of operation so that plant used more frequently is serviced more often.	Medium	

Table 3: Actions and procedures which will be in place to achieve appropriate measures / best available techniques (BAT)

4.2 Onsite Monitoring Procedures

Description of procedure	Procedure	When will this be carried out?	Corrective action
Replacing old / faulty equipment	Procurement of new equipment	When equipment requires replacing	Replace equipment that have sound levels which are equivalent or lower sound levels compared to existing equipment. Select 'low noise' options where available
Checking integrity of the noise barriers	Visual inspection to ensure no gaps or holes	Weekly	Repair if holes or gaps are found.
Daily monitoring for noise around the site	Noise monitoring procedure in Appendix B	Daily	Investigate any unfamiliar or unexpected noise and implement repairs/rectify if required
Daily checks on fixed and mobile plant	Daily check on start up for excessive noise.	Daily	Investigate any unfamiliar or unexpected noise and implement repairs/rectify if required
Daily checks on HGVs	Daily check on start up for excessive noise	Daily	Report noise to fleet manager for repairs
Maintenance and servicing of plant and equipment	Preventative maintenance programme and scheduled servicing of plant based on running hours	Ongoing	Plant and equipment is subject to a preventative maintenance programme to maintain good working order and prevent excessive noise. Plant is serviced according to manufacturer recommendations which is dictated by running hours eg. the crusher may require service every 500 hours. The running hours are logged automatically by the plant

Table 4: Description of onsite processes which will ensure impacts do not increase on site.

4.3 Monitoring Off Site Sound Levels

4.3.1 Qualitative noise monitoring will be carried out monthly by site staff following the monitoring procedure in Appendix B. Monitoring will be carried out by site staff who will position themselves at three locations identified in the NIA: Station Road, off Moss Lane and on Foundry Lane. The staff member will listen for 10 minutes.

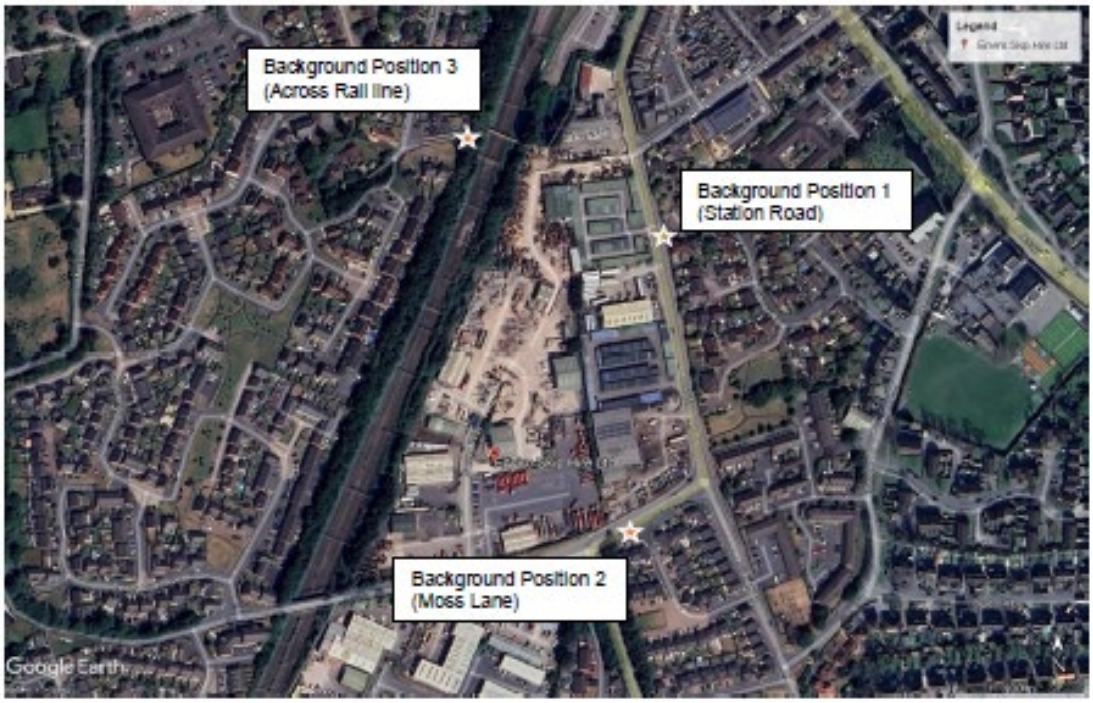


Figure 1: Noise Sensitive Receptors

4.3.2 Results will be recorded and compared to previous assessments.

4.3.3 Results will be reported back to the management team for review. If noise has significantly increased on what was expected then a review of mitigation measures will be carried out and changes instigated.

4.3.4 The noise management plan will be updated following the annual review and include any operational changes made.

4.3.5 The updated Noise Management Plan will be submitted to the local EA team for review and comment before implementing significant changes to site activities.

5. COMPLAINTS REPORTING

5.1 Complaints can be reported using the information provided on the site notice board at the site entrance or through the 'contact us' section on the company website.

5.2 All complaints received will be recorded on the complaints record contained in Appendix C and investigated by the Site Manger. The complaints procedure is contained in Appendix C.

5.3 If the investigation finds that remedial action or repairs are required then these will be carried out without delay. The results will be reported back to the complainant directly.

5.4 A record of incidents, accidents or non-conformances will be kept and reported to senior management. This includes the following information:

- Date and time of incident
- What happened
- What caused it
- Who was involved
- What action was taken
- Were external agencies involved
- Any changes that have been made to the procedures/ EMS to ensure the incident does not reoccur

5.5 If more than one complaint is received within one day, the operations will cease whilst an investigation is carried out and the issue is rectified.

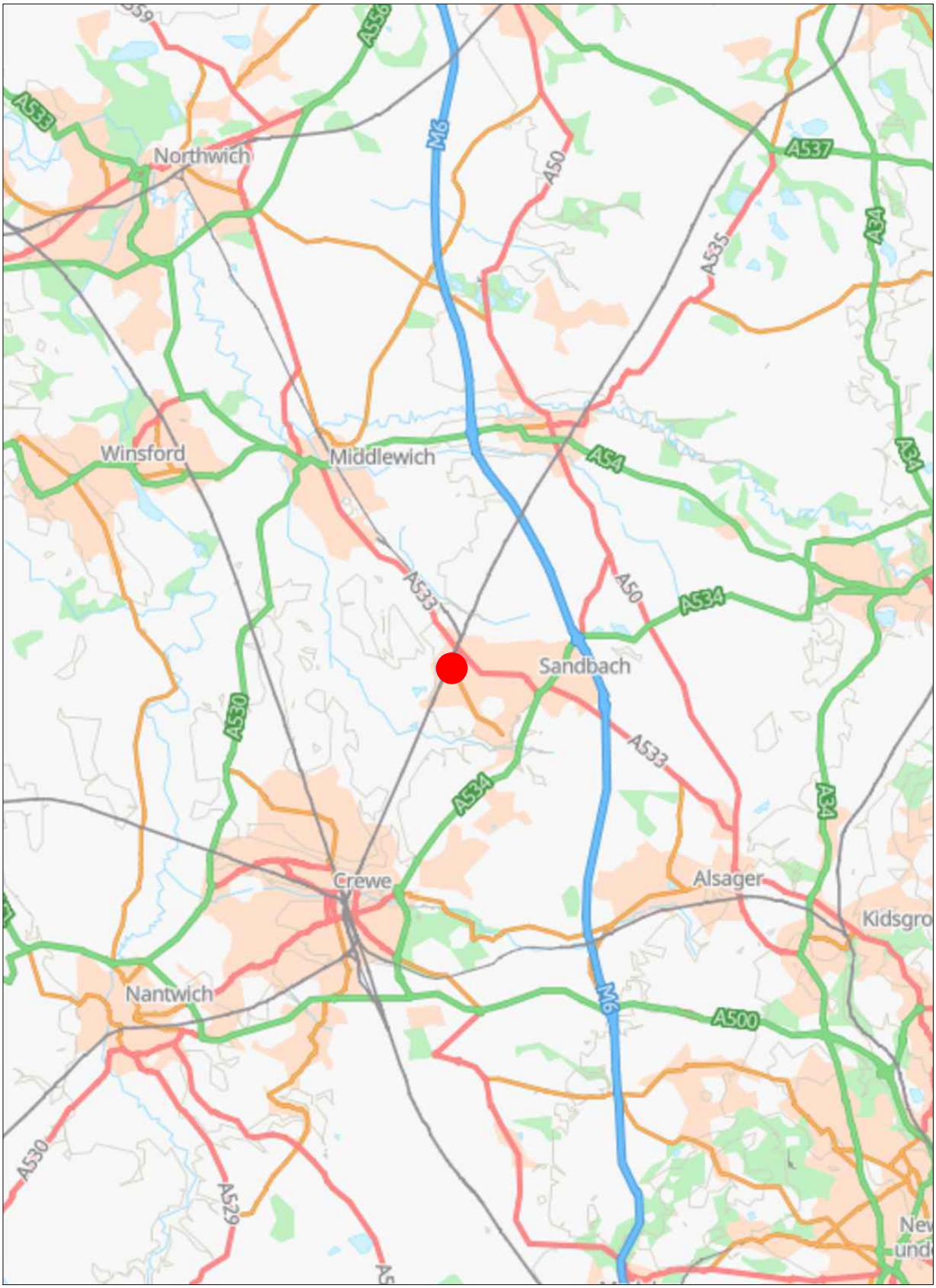
5.6 Complaints received will be reported to the local area EA team by email.

5.7 A complaint will be considered to be resolved when the following have been achieved:

- It has been investigated
- A plan to rectify any identified problem has been put in place; and
- This has been reported back to the complainant.

APPENDIX A

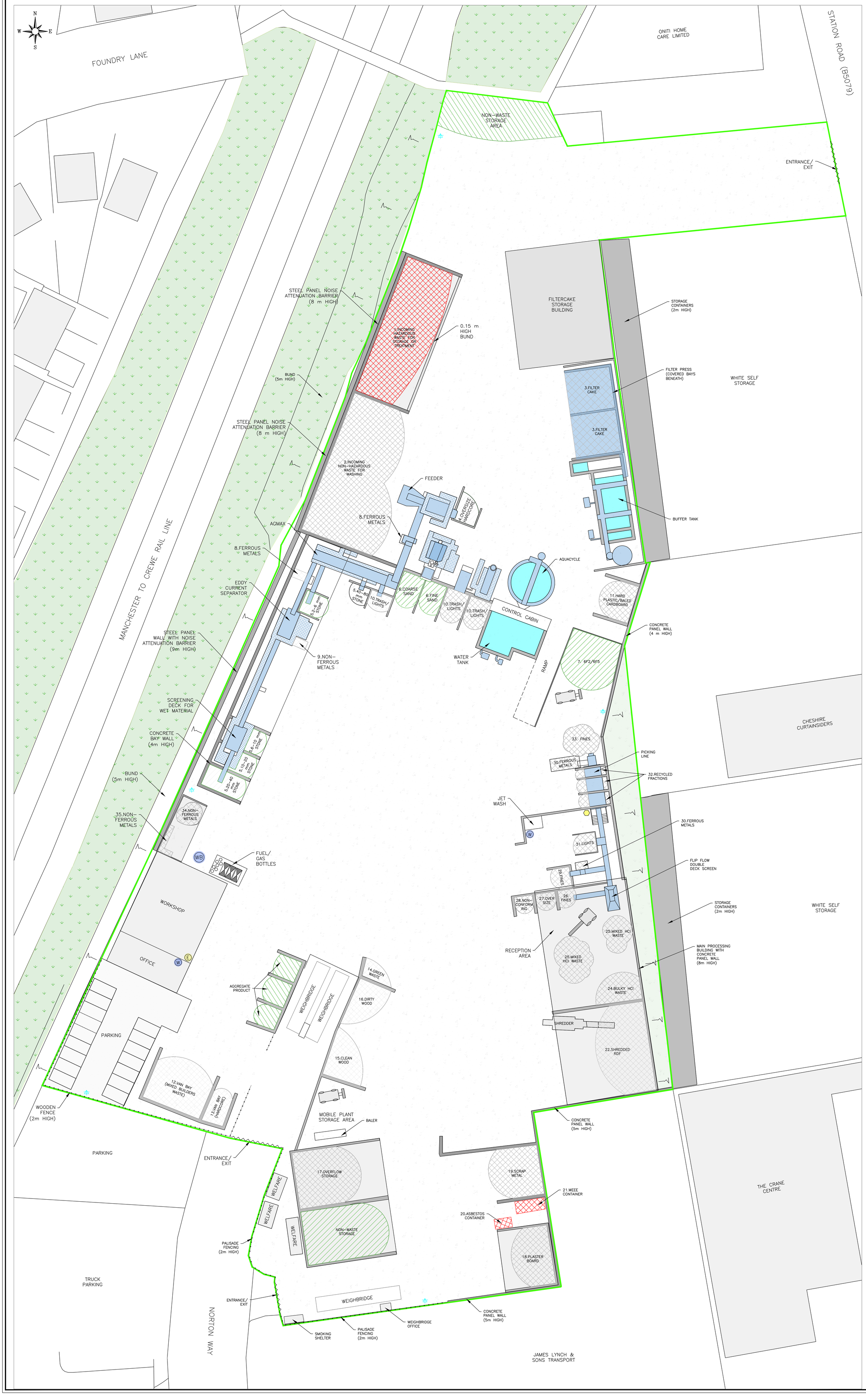
Drawings



LEGEND ● SITE

STARLING ENVIRONMENTAL LIMITED
67 Chorley Old Road, Bolton,
Greater Manchester, BL1 3AJ
www: starlingenvironmental.co.uk
email: claire@starlingenvironmental.co.uk
Tel: 07989 673122

CLIENT: ENVIROSKIPS LIMITED		DRAWN BY: M.Y.B	APPROVED BY: C.G
JOB TITLE: ENVIROSKIPS LIMITED TRANSFER STATION		DATE: 18/08/25	DRAWING No. 161/01
DRAWING TITLE: SITE LOCATION PLAN		SCALE @ A4: NTS	



Legend

- PERMIT BOUNDARY
- CONCRETE SURFACE
- TARMACK SURFACE
- BUILDING
- WOODLAND
- NON-HAZARDOUS WASTE STORAGE
- HAZARDOUS WASTE STORAGE
- NON-WASTE STORAGE OR PRODUCT
- GATES
- BOUNDARY FENCING
- (W) MAINS WATER
- (WB) MOBILE DUST SUPPRESSION EQUIPMENT
- FUEL/OIL STORAGE
- DUST/ODOUR MONITORING POINT
- (E) ELECTRICITY MAINS

REV.	DESCRIPTION	DATE	BY
B	MINOR MODIFICATIONS	21/5/26	MYB
A	MINOR MODIFICATIONS	30/3/26	MYB

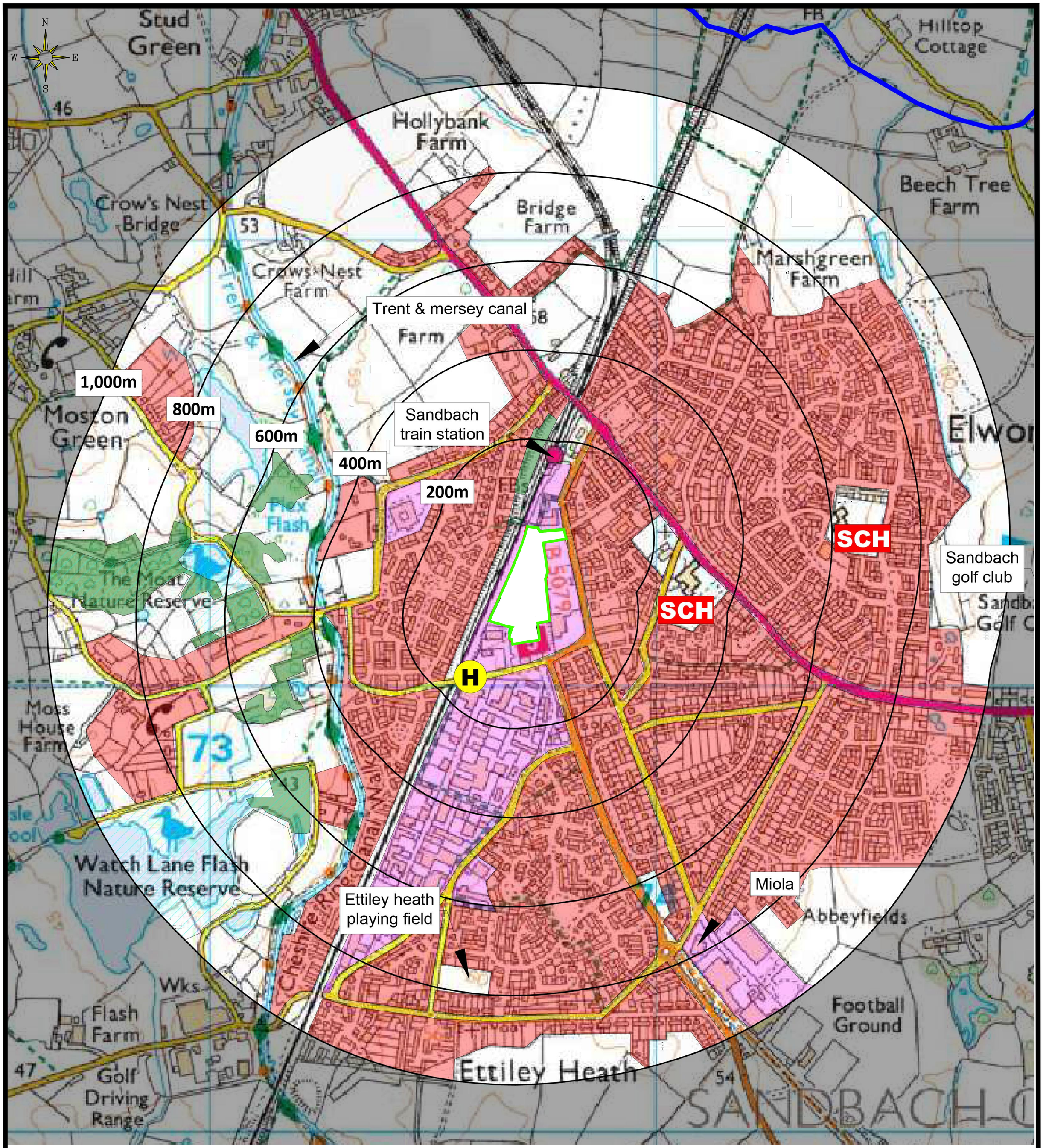
STARLING ENVIRONMENTAL LIMITED
67 Chorley Old Road, Bolton, Greater Manchester, BL1 3AJ
www: starlingenvironmental.co.uk
email: claire@starlingenvironmental.co.uk
Tel: 07989 673122

CLIENT.
ENVIRO SKIPS HIRE LIMITED

JOB TITLE.
ENVIRO SKIPS HIRE LIMITED
SANDBACH
TRANSFER STATION

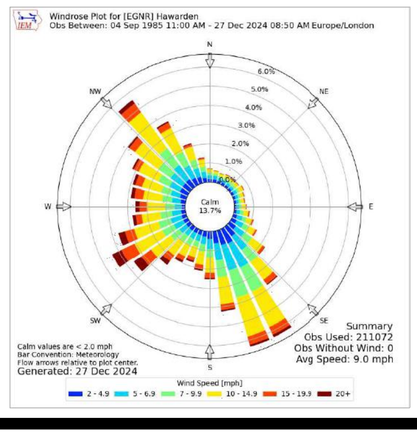
DRAWING TITLE.
SITE LAYOUT PLAN

DRAWN BY.	APPROVED BY.	DRAWING No.
M.Y.B	C.G	161/02B
DATE. 08/08/25	SCALE. 1:250	



LEGEND

- Class A, B, C roads
- Nearest fire hydrant
- Railway line
- School
- Woodland areas
- Priority habitat inventory (deciduous woodland)
- Sites of special scientific interest



STARLING ENVIRONMENTAL LIMITED
67 Chorley Old Road, Bolton,
Greater Manchester, BL1 3AJ
www: starlingenvironmental.co.uk
email: claire@starlingenvironmental.co.uk
Tel: 07989 673122

CLIENT
ENVIROSKIPS LIMITED

DRAWN BY.
M.Y.B

APPROVED BY.
C.G

JOB TITLE.
ENVIROSKIPS LIMITED TRANSFER STATION

DATE.
18/08/25

DRAWING No.
161/06A

DRAWING TITLE.
RECEPTORS PLAN (1 Km)

SCALE @ A1.
1:1,250

APPENDIX B

Noise Monitoring Procedure

NOISE MONITORING PROCEDURE

On-Site Monitoring

1. A daily site inspection will be carried out by the appointed manager which will consist of a walk around the site boundary, pausing and listening at processing areas close to noisy plant, in particular the dry crushing/screening area and the wash plant area.

2. The inspection results will be recorded in the site diary including a record of the following information:

- date and time of inspection
- fixed plant in use at the time of the inspection
- mobile plant in use
- type of noise encountered eg. steady or intermittent, pitch of the noise eg. low/rumbling or high pitched
- whether noise was considerd typical or if it was unusual and could cause annoyance
- whether further investigaiton is required

3. If increased or unfamiliar noise was encountered this will be actioned to be investigated immediately and the results will be recorded in the site diary including any action taken to reduce noise.

4. All fixed plant and mobile plant is checked on start up by the operators and and defects, including noise generation, are recorded and reported. Rectifying action is recorded in the site diary.

5. Qualitative noise monitoring will be carried out annually by a specialist noise consultant. The results will be compared to predicted noise levels in the noise impact assessment.

6. If noise has significantly increased on what was predicted then a review of mitigation measures will be carried out and changes instigated.

Off-Site Monitoring

1. Off-site monitoring will be carried out once per month. This will be carried out by site staff who will position themselves on the green in front of Astling Green.

2. Staff will spend ten minutes listening to the background noise to see if they can identify noise from the site. The results will be recorded in the site diary including a record of the following information:

- date and time of inspection
- fixed plant in use at the time of monitoring
- mobile plant in use
- type of noise encountered eg. steady or intermittent, pitch of the noise eg. low/rumbling or high pitched
- whether noise was considerd typical or if it was unusual and could cause annoyance
- whether further investigaiton is required

3. The results of off-site monitoring will be reported back to the senior management team.

4. If the site noise was considered unusual, a specialist noise consultant will be contacted to investigate further.

APPENDIX C

Complaints Procedure

COMPLAINTS PROCEDURE

Reporting of Complaints

Any complaints relating to the site will be recorded in the site diary as detailed in the EMS.

All complaints received will be recorded and investigated by the AM. A response will be reported back to the complainant.

A record of incidents, accidents or non-conformances will be kept including the following information:

- Date and time of incident
- What happened
- What caused it
- Details of any contamination
- Who was involved
- What action was taken
- Were external agencies involved
- Any changes that have been made to the procedures/ EMS to ensure the incident does not reoccur

Management Responsibilities

The responsibility of handling complaints is with the AM with support from a senior manager. Incidents are investigated by the AM whereby rectifying action is determined.

Community Liaison

Liaison with immediate neighbours is undertaken by phone call or by visiting in person.

A community liaison group will be established if liaison with the wider community is required.

APPENDIX D

Noise Impact Assessment

Philip Dunbavin Acoustics Ltd
3 Bridgewater Court
Barsbank Lane
Lymm
WA13 0ER

NOISE IMPACT ASSESSMENT - PROPOSED NEW WASH PLANT

ENVIRO SKIP HIRE, NORTON WAY, SANDBACH

REPORT REFERENCE NO. J006149-9535-RDC-2

29th May 2026

Tel: 01925 759380 Email: enquiries@pdaltd.com

Registered Number 2302847 England
Registered Office: 3 Bridgewater Court, Barsbank Lane, Lymm WA13 0ER

Document Control Sheet

Details of Assessment	
Client	Enviro Skip Hire Ltd
Document Title	Noise Impact Assessment - Proposed New wash plant, Enviro Skip Hire, Norton Way, Sandbach.
Report Reference	J006149-9535-RDC-2

Client Address:	Company Address:
Unit 3a Norton Way Sandbach Cheshire CW11 3WL	Philip Dunbavin Acoustics Ltd 3 Bridgewater Court Barsbank Lane Lymm WA13 0ER

Issue	Date	Author	Remark	Status
01	7/05/2026	Richard Cookson	Initial Issue	
02	29/05/2026	Richard Cookson	Revised mitigation	

	Name	Position
Prepared By	Richard Cookson BSc(Hons) PhD MIOA	Principal Consultant
Checked By	Chris Wright BSc(Hons) MIOA	Senior Consultant

This document has been prepared for the client only and solely for the purposes expressly defined herein. We owe no duty of care to any third parties in respect of its content. Therefore, unless expressly agreed by us in signed writing, we hereby exclude all liability to third parties, including liability for negligence, save only for liabilities that cannot be so excluded by operation of applicable law.

This report has been prepared based upon a scope of works and associated resources agreed between the client and Philip Dunbavin Acoustics Ltd (PDA). This report has been prepared with all reasonable skill, care and diligence and has been based upon the interpretation of data collected. This has been accepted in good faith as being accurate and valid at the time of the collection. This report has been based solely on the specific design assumptions and criteria stated herein.

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APPENDIX A – DEFINITION OF ACOUSTIC TERMS

1.0 SUMMARY

At the request of Enviro Skip Hire Ltd, a noise impact assessment has been undertaken relating to the addition of an Aggregate Wash Plant and increase in throughput relating to the existing waste processing operations at Norton Way, Sandbach, CW11 3WL.

Noise surveys have been conducted at locations representative of the nearest noise sensitive properties to the site. The results of the surveys have been used to assess the background sound at the nearest noise sensitive receptors (during a period when operations at the Enviro Skip Hire site were halted) and to determine the likely impact of the new wash plant and reconfiguration of the site layout in terms of noise.

The assessment has been undertaken following the guidance contained within BS4142:2014+A1:2019 – 'Methods for rating and assessing industrial and commercial sound'.

We have measured the sound levels generated by the existing operations on-site and calculated the impact at nearby noise sensitive properties of the existing permitted operations. We have then undertaken a further modelling exercise to determine the likely noise levels from the proposed operation of the new wash plant including the increase in throughput, and also calculated the cumulative impact of the existing operations plus the new wash plant (including the proposed changes in the layout of the site, and proposed changes to boundary treatments).

The impact of the proposed increase in throughput and new wash plant, after context is taken into account, is positive (reduction in overall impact) at houses off Station Road, and neutral (no change in impact) at houses off Moss Lane and west of the railway line. As such, the overall impact of the proposal on residential amenity is low.

2.0 INTRODUCTION

The Enviro Skips Ltd site takes up a part of the industrial estate at Norton Way, Sandbach. The existing site operations involve the receipt and processing of waste including mixed waste, metals, timber and inert waste.

The location of the site and surrounding local area including the closest residential receivers are shown in Figure 1 below.

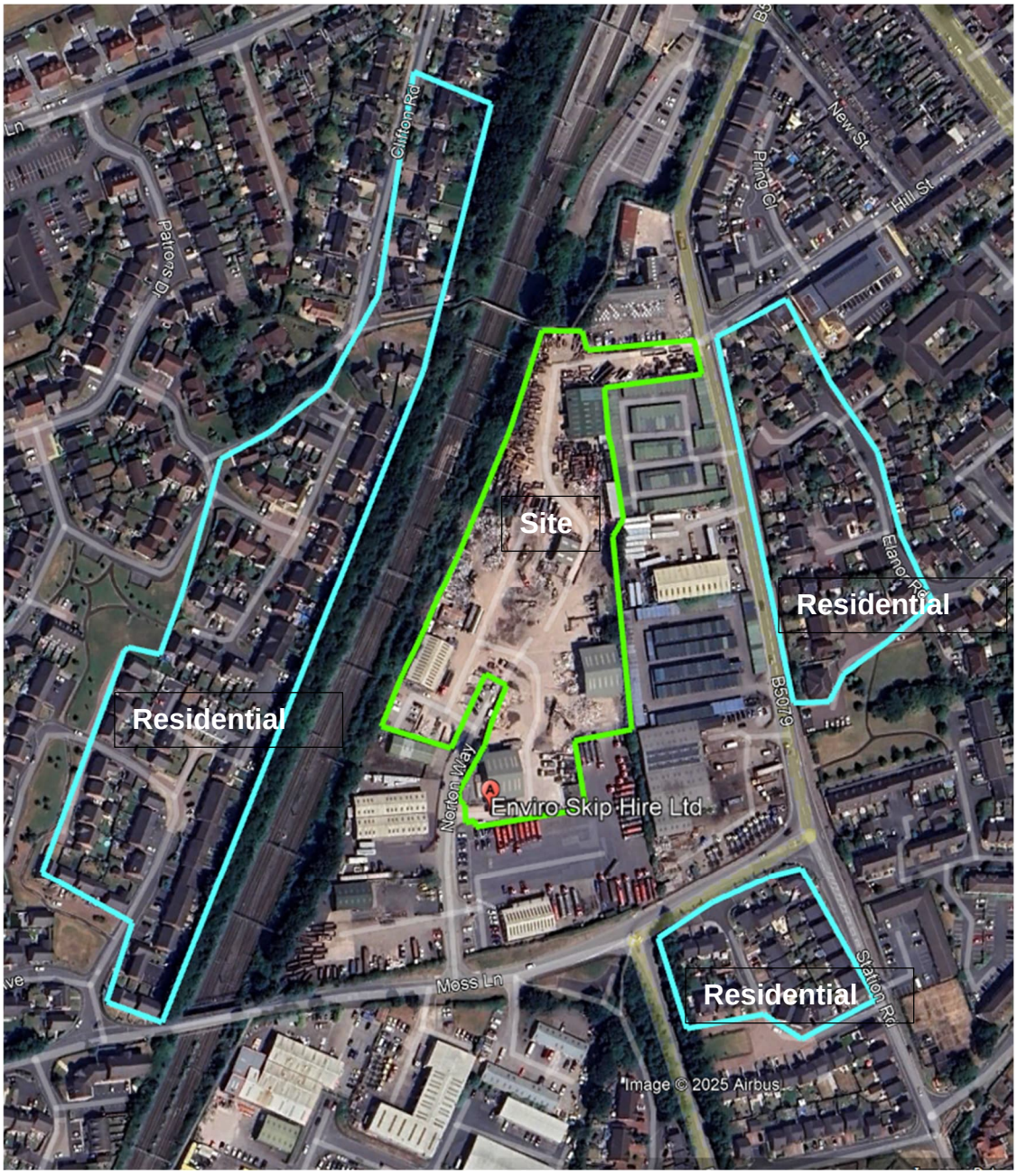


Figure 1. Site Location

It is proposed to add a new Aggregate Wash Plant, to allow the recycling of aggregates by washing and screening into soil, sand and graded aggregates. It is also proposed to increase the throughput of waste from the current 75,000 tonnes per annum to 325,000 tonnes per annum.

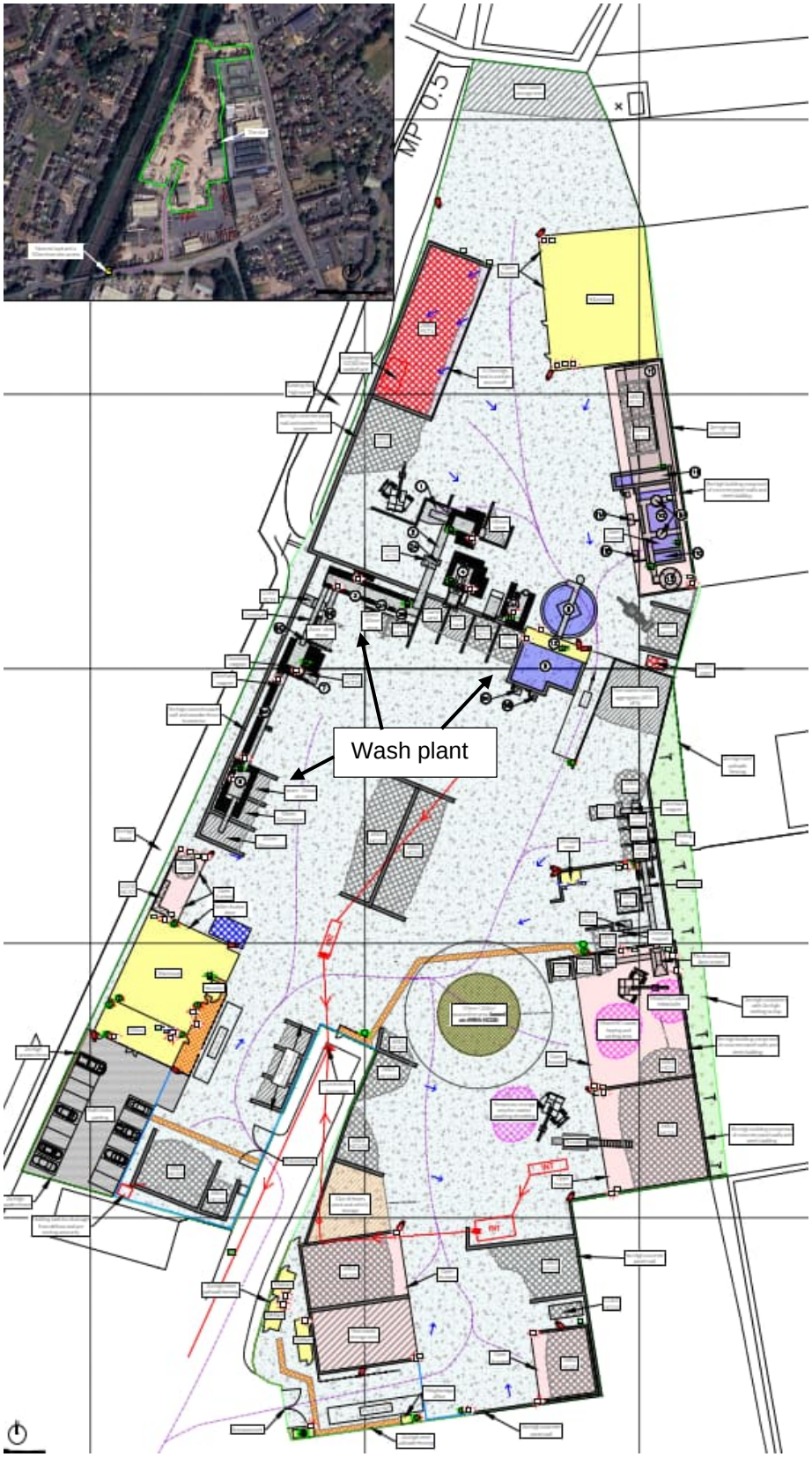


Figure 2 - Layout of proposed wash plant

3.0 NOISE ASSESSMENT CRITERIA

3.1 National Planning Policy Framework

National Planning Policy is guided by the National Planning Policy Framework (NPPF) updated in February 2025. With regard to Noise the Framework states the following;

Planning policies and decisions should contribute to and enhance the natural and local environment by:

- *preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability.*

Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:

- *mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;*
- *identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.*

The terms '*significant adverse impact*' and '*adverse impact*' are defined in the explanatory notes of the 'Noise Policy Statement for England (NPSE) which states;

There are two established concepts from toxicology that are currently being applied to noise impacts, for example, by the World Health Organisation. They are:

NOEL – No Observed Effect Level

This is the level below which no effect can be detected. In simple terms, below this level, there is no detectable effect on health and quality of life due to the noise.

LOAEL – Lowest Observed Adverse Effect Level

This is the level above which adverse effects on health and quality of life can be detected.

Extending these concepts for the purpose of this NPSE leads to the concept of a significant observed adverse effect level.

SOAEL – Significant Observed Adverse Effect Level

This is the level above which significant adverse effects on health and quality of life occur.

The notes also offer an explanation of the term 'adverse impacts' as follows;

… refers to the situation where the impact lies somewhere between LOAEL and SOAEL. It requires that all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life while also taking into account the guiding principles of sustainable development (paragraph 1.8). This does not mean that such adverse effects cannot occur.

Although no specific noise limits for LOAEL and SOAEL have been defined, in 2014 the UK Government published a planning practice guidance document for noise which indicates where these limits fall with relation to the perception of noise. A summary is reproduced in Section 4.2 below, and the full document is published at https://www.gov.uk/guidance/noise--2. It is considered that guidance from other acoustic standards may be employed to determine suitable levels within the overall principal of the National Planning Policy Framework.

The National Planning Policy Framework also states:

> *Planning policies and decisions should ensure that new development can be integrated effectively with existing businesses and community facilities (such as places of worship, pubs, music venues and sports clubs). Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or 'agent of change') should be required to provide suitable mitigation before the development has been completed.*
>
> *The focus of planning policies and decisions should be on whether proposed development is an acceptable use of land, rather than the control of processes or emissions (where these are subject to separate pollution control regimes). Planning decisions should assume that these regimes will operate effectively. Equally, where a planning decision has been made on a particular development, the planning issues should not be revisited through the permitting regimes operated by pollution control authorities.*

3.2 Planning Practice Guidance – Noise

In March 2014 (updated July 2019) the UK Government published further guidance on the assessment of noise for planning purposes in the form of the on-line publication, Planning Practice Guidance on noise (http://www.gov.uk/guidance/noise--2). This document offers further guidance on the typical levels which constitute the NOEL, LOAEL and SOAEL. The relevant section is reproduced in the table below;

Table 1. Planning Practice noise level guidance

Perception	Examples of Outcomes	Increasing Effect Level	Action
No Observed Effect Level			
Not present	No Effect	No Observed Effect	No specific measures required
No Observed Adverse Effect Level			
Present and not intrusive	Noise can be heard, but does not cause any change in behaviour, attitude or other physiological response. Can slightly affect the acoustic character of the area but not such that there is a perceived change in the quality of life.	No Observed Adverse Effect	No specific measures required
Lowest Observed Adverse Effect Level			
Present and intrusive	Noise can be heard and causes small changes in behaviour, attitude or other physiological response, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise.	Observed Adverse Effect	Mitigate and reduce to a minimum

	Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a small actual or perceived change in the quality of life.		
Significant Observed Adverse Effect Level			
Present and disruptive	The noise causes a material change in behaviour, attitude or other physiological response, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area.	Significant Observed Adverse Effect	Avoid
Present and very disruptive	Extensive and regular changes in behaviour, attitude or other physiological response and/or an inability to mitigate effect of noise leading to psychological stress, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory	Unacceptable Adverse Effect	Prevent

It is notable from the above planning guidance that development should not normally be permitted above Significant Observed Adverse Effect Levels, and should aim to minimise Other Adverse Effect Levels (below SOAEL but above LOAEL). However, it is clear that noise is permitted to approach and/or exceed the Lowest Observed Adverse Effect Level, providing that noise is mitigated and reduced to a minimum.

3.3 BS4142:2014+A1:2019 Methods for rating and assessing industrial and commercial sound

The effect of plant noise emissions on the nearest noise sensitive residences can be assessed in accordance with BS4142:2014+A1:2019 – '*Methods for rating and assessing industrial and commercial sound*'.

The standard describes a method of determining the level of a noise of commercial or industrial nature, together with procedures for assessing the impact of such a noise outside nearby noise sensitive areas.

The standard provides a procedure for comparing the noise from commercial sources with background noise levels in the absence of the commercial noise and determining the likely impact of the noise on noise sensitive areas.

In accordance with BS 4142 the background noise level is the typical A-weighted sound pressure level at the assessment position that is exceeded for 90% of a given time interval (L_{A90}). The specific noise level is the equivalent continuous (L_{Aeq}) sound pressure level at the assessment position produced by the noise source over a given time interval.

Certain acoustic features can increase the impact over that expected from a simple comparison between the specific noise level and the background level. Where such features are present, these are taken into account by adding corrections to the specific noise level.

The corrections are applied based on whether the following features occur, or are expected to be present. The correction values can either be determined subjectively, or by various objective measurement procedures.

- The noise contains a distinguishable, discrete, continuous tone (whine, hiss, screech, hum, etc.). 0 – 6 dB penalty

- The noise contains distinct impulses (bangs, clicks, clatters, or thumps). 0 – 9 dB penalty.
- The noise is irregular enough to attract attention. 0 – 3 dB penalty.
- Other features. 0 – 3 dB penalty.

From the addition of the above penalties where appropriate the rating level is established, this being the value that is compared with the background noise.

According to BS 4142 an initial estimate of the impact is given for a rating level of:

- 10 dB(A) or more above the background is an indication of significant adverse impact, depending on the context.
- 5 dB(A) above the background is an indication of an adverse impact, depending on the context.
- where the rating level does not exceed the background level, this is an indication of the specific sound source having a low impact, depending on the context.

The above initial assessment may then be modified depending on the context to take into account;

- The absolute level of the sound.
- The character and level of the residual sound compared to the character and level of the specific sound.
- The sensitivity of the receptor and whether dwellings or other premises used for residential purposes will already incorporate design measures that secure good internal and/or outdoor acoustic conditions, such as:

    1. Façade insulation treatment
    2. Ventilation and / or cooling that will reduce the need to have windows open so as to provide rapid or purge ventilation; and
    3. Acoustic screening

3.4 WHO Guidelines for Community Noise

In 1999, the WHO (World Health Organisation) published Guidelines for Community Noise, stating the following internal noise levels are applicable to dwellings.

Table 2 - WHO Guidelines for Community Noise criteria

Specific Environment	***Critical Health Effect(s)***	***L_{Aeq} dB***	***Time Base (hours)***[1]
Outdoor living area	Serious annoyance, daytime and evening	55	16
	Moderate annoyance, daytime and evening	50	16
Outside Bedrooms	Sleep disturbance, window open (outdoor values) night time	45	8

[1] Typically taken to be daytime/evening - 07:00 – 23:00 hours, and night time 23:00 – 07:00 hours.

WHO guidelines state, '*To protect the majority of people from being seriously annoyed during the daytime, the outdoor sound level from steady, continuous noise should not exceed 55 dB L_{Aeq} on balconies, terraces and in outdoor living areas. To protect the majority of people from being moderately annoyed during the daytime, the outdoor sound level should not exceed 50 dB L_{Aeq}*.'

The WHO guidelines also state that, "it is recommended that $L_{Aeq,T}$ be used to evaluate more-or-less continuous environmental noises. Where the noise is principally composed of a small number of discrete events, the additional use of L_{Amax} or SEL is recommended."

In addition the WHO guidelines state that to prevent sleep disturbance maximum noise levels of specific events should not exceed 45 dB L_{Amax} inside bedrooms (60 dB L_{Amax} outside bedrooms assuming open windows) more than 10 – 15 times per night.

4.0 SURVEY DETAILS

4.1 Sound Measurement Locations

Ambient sound measurements of the existing sound climate were undertaken at three locations close to the nearest noise sensitive houses to the proposed aggregate wash plant. The measurement locations were selected to be representative of the background sound level at the noise sensitive receivers in the vicinity of the development. The microphone was mounted 1.3 - 1.5m (2.0m at Position 3) above ground level. A range of statistical noise indicators was measured, including broadband L_{Aeq} and L_{A90}. Measurements were setup to log every 1 second and also to record parameters over 15 minute intervals consistent with the requirements for Background Sound measurements in accordance with BS 4142.

The ambient / background sound measurement locations are highlighted in Figure 3 below at: Position 1, adjacent to houses off Station Road; Position 2, adjacent to houses off Moss Lane and Position 3, representative of houses to the west across the railway line.

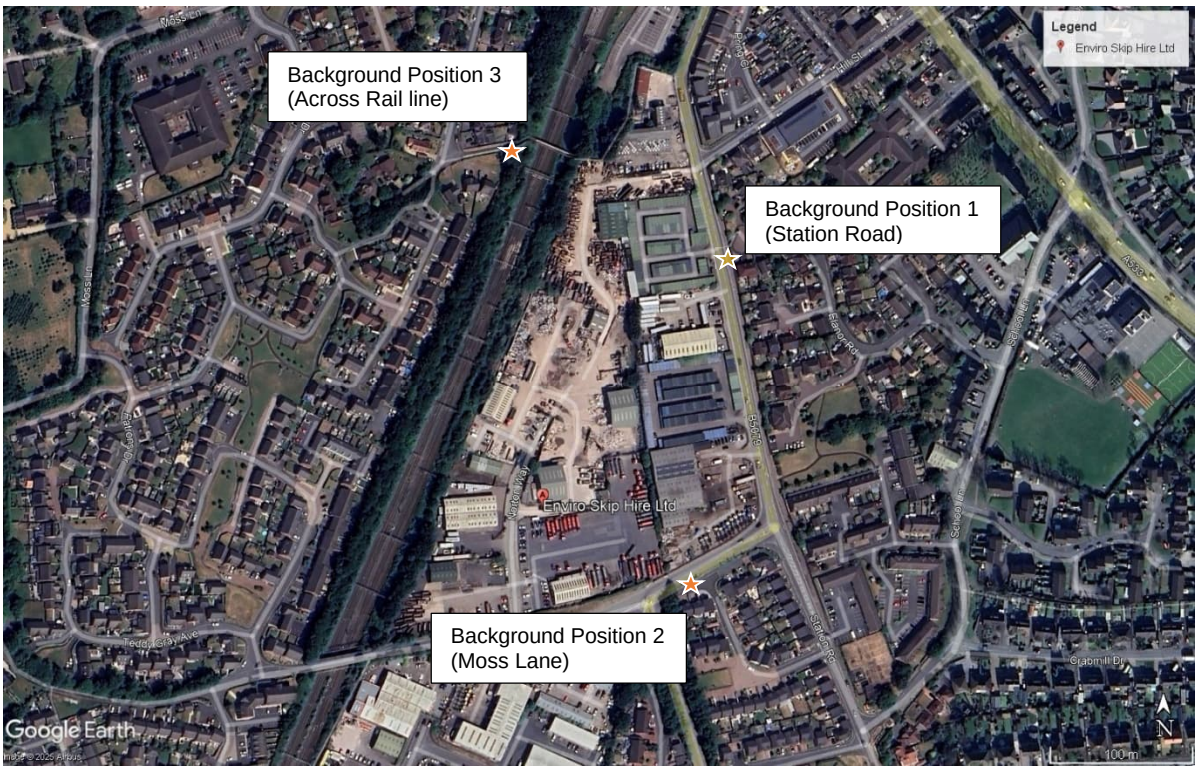


Figure 3 – Sound survey locations in vicinity of site

Further to the above measurements of the existing sound levels in the vicinity of the nearby noise sensitive properties, measurements were also taken of the sound levels of the existing activities on the Enviro Skip Hire site.

4.2 Survey Times

The ambient and background sound measurements were at the following times:

- Position 1 – Station Road:
    - Weekday: 23/07/2025 06:15 – 11:50; 22/07/2025 15:30 – 18:30

- Position 2 – Moss Lane
    - Weekday: 23/07/2025 05:57 – 11:43; 22/07/2025 15:59 – 18:43
- Position 3 – Foundry Lane (with 9m barrier to lower portion of site)
    - Weekday: 20/03/2026 12:25 – 14:40

Source measurements at the Enviro Skip Hire Site were taken on 23rd July 2025 between 07:37 and 10:37 and on 20th March 2026 between 13:15 and 13:30.

Measurements were taken by Richard Cookson and Sky Hawkins both of PDA Ltd.

4.3 Measurement Equipment

The surveys were conducted using NTi XL2 sound level meters and a Rion NA-28 sound level meter, for which calibration certificates are held. The sound level meters are Class 1 accuracy in accordance with IEC 61672-1. The meters were set to A-Weighted and fast response. The meters were calibrated immediately before and after measurements took place and no significant drift was observed.

4.4 Weather

Weather observations were taken on-site. On the 22nd / 23rd July 2025 weather was clear and dry during the measurements with very light winds (0-1 m/s) from the north-west. Temperatures varied between 15°C (in the morning period) and 20°C (in the afternoon). On the 20th March 2026 the weather was clear and dry with windspeeds of 1-2 m/s from the north-west. Temperatures were between 12 and 13°C.

5.0 SURVEY RESULTS

5.1 Subjective description of noise sources at Noise Sensitive Receivers

During the ambient sound survey at the nearest receivers the sound comprised of: local road traffic including frequent HGVs at Position 1 on Station Road; frequent local road traffic, occasional rail traffic and noises from nearby commercial / industrial units at Position 2 on Moss Lane; occasional road traffic, intermittent train passes and noises from nearby commercial / industrial units (including the Enviro Skips site during the periods when it was operational at Position 3).

5.2 Subjective description of sources at Enviro Skip Hire site

Measurements of the sources at the Enviro Skip Hire site were taken using a sound level meter mounted on a tripod with the microphone approximately 1.3 -1.5m above ground level and a windshield fitted.

The following sources were measured:

5.2.1 Grab sorting metal

A Terex wheeled mechanical grab crane was measured sorting received metal waste onto stock piles, and removing non metal items. Material was delivered to the area for sorting by a telehandler.

5.2.2 Excavator sorting mixed waste

A stationary tracked excavator fitted with a grab arm was measured sorting received mixed waste.

5.2.3 Inside Mixed Waste building

A measurement was made inside the open fronted mixed waste building with an excavator fitted with a back-hoe sorting waste and feeding material to the picking line.

5.2.4 Loading Shovel

A measurement was made of a loading shovel maintaining stockpiles.

5.2.5 Shredder

A measurement was made of a newly purchased soft-waste shredder (Terex Ecotec TDS 820) operating, shredding soft material onto a stockpile.

5.2.6 Screen and Blower

A measurement was made of the external screen / blower / overband magnet conveyor feeding the picking line.

5.2.7 Crusher

An aggregate crusher was also measured with measurements taken 20m from the crusher. Additional measurements were taken of a loading shovel loading a lorry with crushed aggregates.

5.2.8 Residual sound levels

During the morning measurement, all recycling activity was halted between 09:57 and 10:33 and measurements of residual noise levels were taken.

5.3 Ambient sound levels at nearby noise sensitive residences

A summary of the ambient sound level measurements is given below.

5.3.1 Position 1 – Station Road

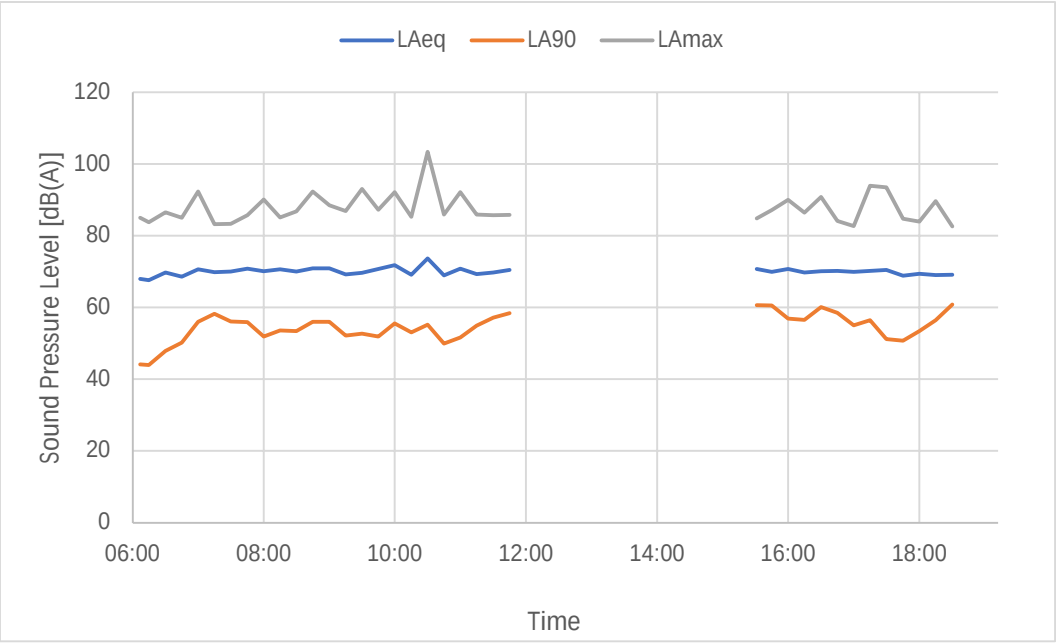


Figure 4 – Ambient sound levels measured at Position 1

5.3.2 Position 2 – Moss Lane

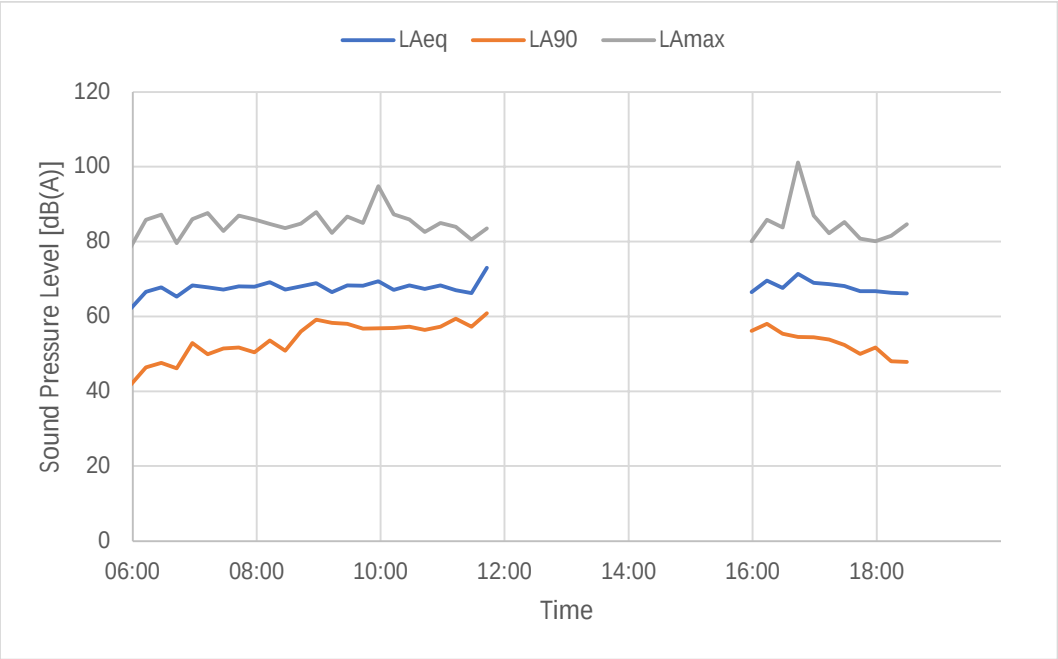


Figure 5 – Ambient sound levels measured at Position 2

5.3.3 Position 3 – Foundry Lane

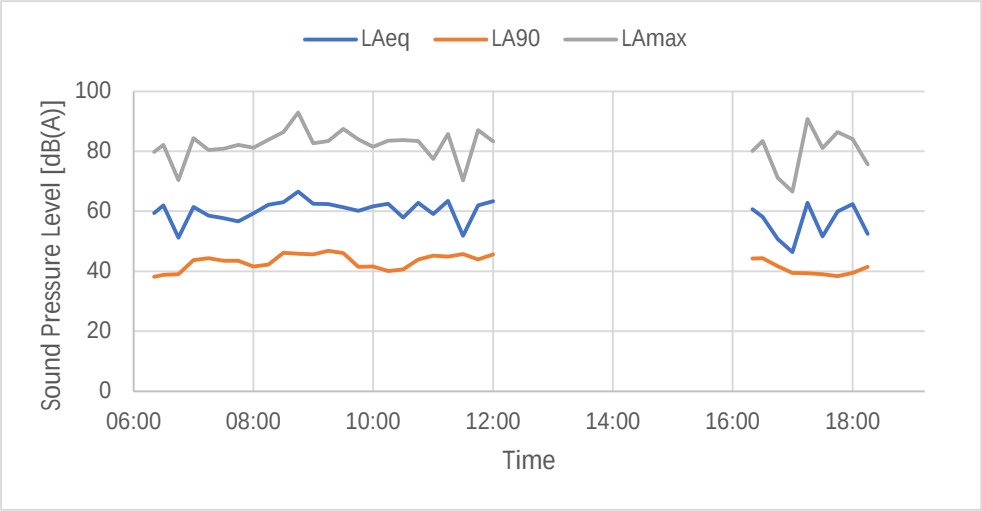


Figure 6 – Ambient sound levels at Position 3 Foundry Lane

5.4 Derivation of Background Sound Level

In accordance with the requirements of BS4142 the determination of background is not simply to ascertain a lowest measured background sound level, but rather to quantify what is typical during relevant time periods. Within BS4142 is states the following:

"8.1.4 The monitoring duration should reflect the range of background sound levels for the period being assessed. In practice, there is no "single" background sound level as this is a fluctuating parameter. However, the background sound level used for the assessment should be representative of the period being assessed.

NOTE 1 To obtain a representative background sound level a series of either sequential or disaggregated measurements ought to be carried out for the period(s) of interest, possibly on more than one occasion. A representative level ought to account for the range of background sound levels and ought not automatically to be assumed to be either the minimum or modal value."

We would also note that in accordance with BS 4142, in the context of the new wash plant operation, the pre-existing background sound level includes the other existing operations on the Enviro Skip Hire and other local industrial sites. With regard to subjective observations during the survey, sound from the commercial sites were audible from time to time at the nearby noise sensitive properties.

To obtain the typical Background Sound Levels for the assessment of existing operations at the site, all operations were halted between 09:57 and 10:34.

Table 3 - Representative Background and Residual Levels **in absence of Enviro Skip Hire operations**

Parameter	Pos 1	Pos 2	Pos 3
Representative Background Sound Level L_{A90}	54	57	41
Representative Residual Sound Level L_{Aeq}	71	68	62

~~5.6~~5.5 Specific Sound Level Measurements

Measurements were made of the items of plant operating on site. Corrections were applied for measured distance to obtain sound power levels of plant.

Table 4 – Sound power levels of measured plant operating on sites

Plant	L_{wA}	L_w [dB(Z)]							
		63	125	250	500	1000	2000	4000	8000
Grab sorting metal	101	66	84	90	92	94	97	92	82
Excavator sorting mixed waste	99	67	77	85	88	92	92	94	83
Inside mixed waste building (sound pressure level)	68 [L_{pA}]	45 [L_p]	50 [L_p]	54 [L_p]	61 [L_p]	63 [L_p]	63 [L_p]	59 [L_p]	50 [L_p]
Loading shovel maintaining stock piles	96	72	77	86	89	92	91	87	77
Shredder (new)	104	108	101	100	100	98	97	94	87
Screen & Blower (feeding picking line)	102	74	80	89	95	96	96	95	88
Crusher	114	80	96	99	105	109	109	105	96
Residual levels (all plant off, some noise from	50 [L_{pA}]	30 [L_p]	33 [L_p]	41 [L_p]	43 [L_p]	45 [L_p]	46 [L_p]	42 [L_p]	31 [L_p]

adjacent site) [Sound Pressure]									
Loading shovel loading crushed aggregate onto 20T lorry (2 minute duration)	102	73	81	89	93	96	97	96	84
20T lorry tipping load (38 seconds)	102	78	86	94	96	98	96	92	84
Lorry movement line source (8 wheeled truck) per m of traverse at ~10mph *	89.1	83.6	83.8	82.9	86.8	81.4	73.4	65.5	89.1
Proposed new wash plant (e.g. M2500 Aggmax) sound power level L_{WA} derived from CDE Global survey measurement	110.4								

Notes:

* Library measurements from PDA database

6.0 SOUND PROPAGATION MODEL

6.1 Existing operations

The operating hours of the site are:

Monday to Friday 07:00 — 17:30

Saturday 07:30 — 13:00

Sundays, Bank/Public holidays Closed

The site has operated as a recycling site since at least 1992.

In order to construct the model of the existing operations:

- Lorry movements have been modelled as based on the current 75,000 Tonnes per year capacity being equivalent to 1.4 20 Tonne lorries in and out of the site per hour over the operating time of the site. Allowing a 20% uplift for non-full lorries gives a typical 1.7 lorries for hour. For the purposes of modelling a typical worst case hour we have increased this to 2 lorries per hour traversing the route into and out of the site with the associated two lorries tipping and two lorries being loaded (based on a loading with aggregate using a loading shovel). The lorry traverse in and out of the site is around 214m and based on a 10mph drive results in approximately 48 seconds per lorry driving time.

- A loading shovel has been modelled operating to maintain stock piles. The loading shovel has been modelled as an area source 0.5m above ground level operating around the central storage area of the site. The loading shovel sound power has been adjusted to give an equivalent of the loading shovel operating for 25% of the assessment period.

- A crusher crushing aggregate, excavator sorting mixed waste, grab crane sorting metal scrap, shredder shredding soft waste, and blower and screen associated with the picking line have all been modelled as point sources.

- The facades and open front of the general waste building have been modelled as area sources, taking into account the sound reduction of the single skin cladding.

- The site layout includes a number of existing concrete and steel perimeter walls. These have been included in the SoundPlan propagation model. Similarly, the 2m close boarded fence separating gardens to the houses west of the railway, and the 2.5m brick wall along the eastern pavement of Station Road have been included in the model.

The sound propagation to the nearest noise sensitive properties has been calculated and is shown in Figure 7 below. The model has been set to calculate a highest reflection order of 3.



Figure 7 – SoundPlan model - sound propagation to nearest noise sensitive properties with current operations – Key to tables |Floor level | L_{Aeq} |

6.2 New wash plant plus increase in throughput

A further sound propagation model has been produced with the sound level of the new wash plant modelled as a line source 3m above ground level in the location of the proposed wash plant "R-Series" and "AGMAX" components. The sound power of the proposed wash plant has been calculated from a CDE Global survey of a similar operating wash plant and the frequency spectrum has been taken from previous measurements of a similar wash plant from the PDA database. We have also modelled the additional lorry movements predicted from the increase in throughput of the site. Lorry movements have been derived as previously with a 20% uplift for unfilled lorries. For this model, we have included the *increase* in deliveries over the current level, i.e. an additional 5 lorries per hour, including associated loading and unloading. Similarly we have estimated the increase in loading shovel operation on a pro-rata basis with the increase in throughput. It is also proposed to modify the route of the lorries through the site to form a one-way system, with lorries entering the site on Norton Way, and leaving the site by the northern gate onto Station Road.

The sound propagation to the nearest noise sensitive properties due to the new sources has been calculated and is shown in Figure 8 below. The model has been set to calculate a highest reflection order of 3.



Figure 8 – SoundPlan model - sound propagation to nearest noise sensitive properties of proposed additional sources – Key to tables |Floor level | L_{Aeq} |

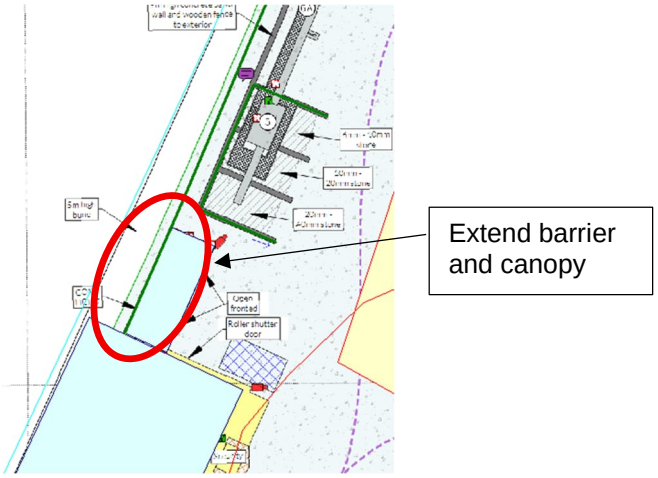
Reviewing the above figure we note that the specific sound levels due to the proposed new plant and operations are predicted as up to 49dB at houses west of the rail line. As the Background Sound in this area is 41 dB, this would result in an exceedance of background sound levels of 8 dB at these locations. Analysis of the model indicates that this exceedance is due to both the operation of the wash plant (with noise transmitting via gaps in the current boundary treatments) and increased noise from HGV movements due to the additional throughput of the site.

In order to mitigate the impact we have proposed a number of additional barriers as detailed below.

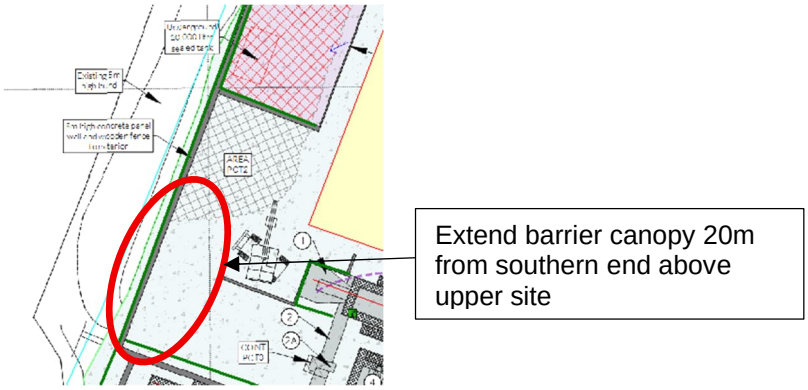
6.3 New wash plant plus increased throughput with additional mitigation option

In order to mitigate the sound from the new wash plant and additional throughput we have modelled the following additional mitigation measures:

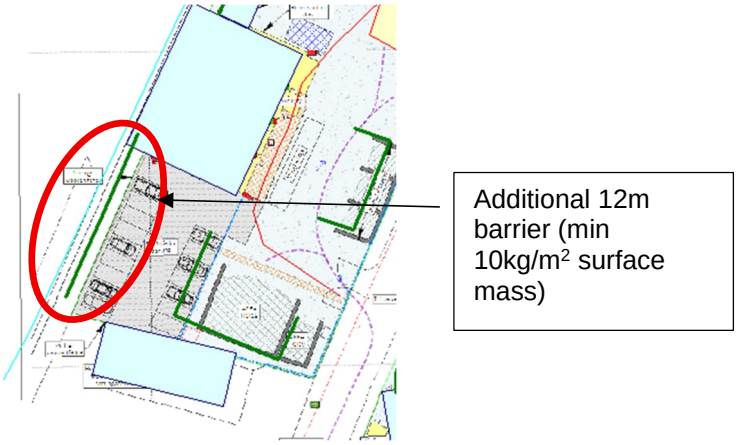
- Extend the southern end of the steel frame barrier to the railway boundary (plus canopy) behind the single storey building to meet the existing weighbridge / office / maintenance building (see figure below).



- Extend the canopy from the existing barrier a further 20m south above the wash-plant area of the upper site (see figure below).



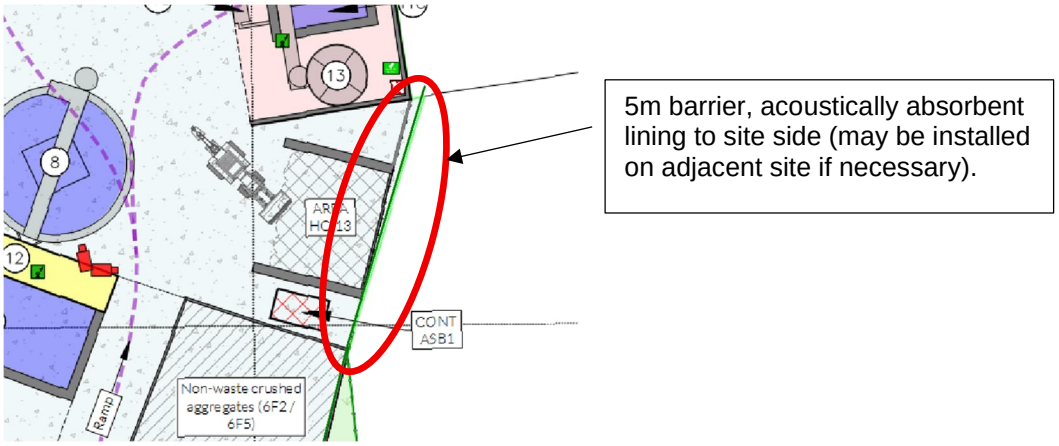
- Install 12m barrier to western boundary adjacent to car park area (required to control noise from additional throughput, see figure below)



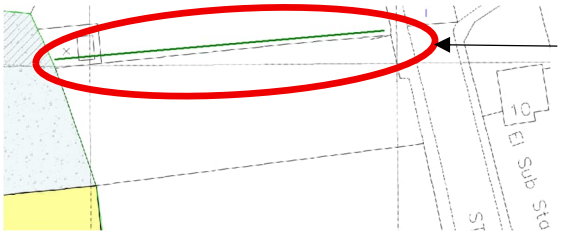
- Install additional 9m high, 20m long barrier to the south of the hazardous waste storage area to control noise from additional HGV movements / changed routing (see figure below)



- Install an additional 5m barrier to the east of the site to close off the gap behind Area HCI13. The side of the barrier facing the site should be fitted with acoustically absorbent material such as a perforated metal lining (30% free area) with 50mm absorbent insulation (e.g. 40-60 kg/m^3 mineral wool or similar) behind the perforated sheet (see figure below).



- Install an additional 5m barrier to the north exit boundary of the site (to control additional vehicle noise from changed routing, see figure below).



The sound propagation model has been repeated for the additional plant and increased throughput with the above additional mitigation in place and is shown in Figure 9Figure 8 below.



Figure 9 – SoundPlan model - sound propagation to nearest noise sensitive properties of proposed additional sources with additional mitigation – Key to tables |Floor level | L_{Aeq} |

6.4 Cumulative operations

A further model has been produced of the cumulative operations at the site, including the current operations and the proposed wash plant and increase in throughput. The additional mitigation measures detailed above are also included in this model. Note that as we have already modelled the worst-case hour for the processing plant (assuming that all the plant operates for the full hour concurrently) there will be no difference in the sound level of the existing processing plant, however, the reorganisation of the site has resulted in some plant (e.g. the crusher) moving to a different location.

The sound propagation to the nearest noise sensitive properties due to the new sources has been calculated and is shown in Figure 10 below. The model has been set to calculate a highest reflection order of 3.

We note that due to the relocation of some items of plant, and additional shielding to the boundaries of the site noise propagation due to the existing operations has reduced at some noise sensitive properties which has resulted in a reduction in the cumulative sound levels.



Figure 10 - SoundPlan model - sound propagation to nearest noise sensitive properties with new wash plant, increased throughput and existing operations – Key to tables |Floor level| - ||

7.0 NOISE IMPACT ASSESSMENT

The specific sound due to the current operation of the site, and the proposed new wash plant and proposed uplift in throughput has been calculated to determine the impact of the proposed changes on surrounding noise sensitive properties. It should be noted that we have used reasonably worst case assumptions that all processing plant are operating for the whole of the hour assessment period, whilst in reality many processes are carried out in campaigns, with sufficient waste stockpiled then processed in a relatively short time rather than a continuous process. Further to this the method of calculation of ISO 9613-2 employed by the SoundPLAN model assumes meteorological conditions favourable to sound propagation, so it should be noted that for much of the time, when all of the activities on site are not occurring simultaneously, or when meteorological conditions are not optimal for sound propagation, the specific sound will likely be lower than predicted.

7.1 Preliminary impact - existing operations

The table below details the results of the modelling calculation described above and compares the Rating Levels with the Background Sound Levels.

Table 5 - Comparison of specific sound with background sound levels

Location	Operation	Predicted Specific Sound Level $L_{Aeq,T}$ (dB)	Feature Correction	Rating Level L_{Ar} (dB)	Representative Background $L_{A90(15\text{-}min)}$ (dB)	Difference between Rating Level and Background (dB)
Houses off Station road (worst case)	Existing operations	59	3	62	54	+8
	Wash plant plus increase in throughput only	55	0	55	54	+1
	Cumulative	57	3	60	54	+ 3
Houses off Moss Lane (worst case)	Existing operations	54	3	57	57	+0
	Wash plant plus increase in throughput only	55	0	55	57	-2
	Cumulative	57	3	60	57	+3
Houses west of railway line (worst case)	Existing operations	49	5	54	41	+13
	Wash plant plus increase in throughput only	43	0	43	41	+2
	Cumulative	49	5	54	41	+13

With regard to the feature corrections, we would note that these are corrections to be applied to features of the source which are likely to draw attention to the sound when assessed at the noise sensitive receiver.

For the current operations occasional bangs and clangs are distantly audible from the site, but not dominant at Station Road and Moss Lane, and for this identifiable character a 3dB penalty has been applied. For the properties west of the Railway Line, the sound from the site is more clearly audible in the quieter periods between train passes, and for this location a 5 dB penalty has been applied for the impulsive nature of the sounds at this location.

The additional wash plant operation is continuous and not expected to include tonal, impulsive or intermittent features (based on observation and measurement of similar aggregate wash plants). Similarly the additional lorry movements associated with the increased throughput of the site are unlikely to be distinguishable from the other lorry movements already present from both the existing and other

industrial sites and roads in the area. As such no feature correction has been applied for the assessment of the proposed new plant alone (also bearing in mind that this is rather an 'artificial' situation, as the new plant is integrated with the activity of the wider site, and would never be able to operate independently).

For the cumulative assessment, the character of the sound will be similar to the current situation (although there are some likely reductions due to the new boundary treatments to the site) and the penalties, for the avoidance of doubt, have been assumed to be the same as the current operation of the site.

It is noted that BS4142 indicates the following:

> *"A difference of around +10 dB or more is likely to be an indication of a significant adverse impact, depending on the context.*
>
> *A difference of around +5 dB is likely to be an indication of an adverse impact, depending on the context.*
>
> *The lower the rating level is relative to the measured background sound level, the less likely it is that the specific sound source will have an adverse impact or a significant adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context."*

Impact during weekdays

The initial estimate of impact indicates that the current activities (during a worst-case hour) are likely to result in a significant adverse impact for the closest houses west of the railway line, and an adverse impact for houses off Station Road, depending on context. For the houses of Moss Lane the existing operations indicate a low impact, depending on context.

For the proposed increased throughput and new wash plant considered in isolation, the impact is insignificant at houses off Moss Lane, and well below the level of adverse impact at houses off Station Road and west of the Railway Line, depending on context.

For the cumulative case, the predicted impact reduces when compared to the current operations for houses off Station Road, depending on context, indicating a positive improvement in the noise climate for these properties. For houses off Moss Lane, the cumulative impact remains below the adverse impact value, depending on context. For the houses west of the rail line, the impact before and after the proposed development remains the same, as background levels are low at this location between train-passes and the sound levels are dominated by the existing operations.

In accordance with BS4142:2014+A1:2019 the above preliminary estimates need to be adjusted if required after consideration of context which is discussed further in Section 8.0 below.

8.0 CONTEXT

BS4142:2014+A1:2019 requires context to be taken into account to determine the impact of commercial sources on nearby noise sensitive residences. The standard indicates that all pertinent factors should be taken into consideration including the absolute level of the sound, the character and level of the residual sound compared to the specific sound, and the sensitivity of the receptor and whether dwellings will already incorporate design measures that secure good internal and / or outdoor acoustic conditions such as:

- Façade insulation treatment
- Ventilation and/or cooling that will reduce the need to have windows open

- Acoustic screening

With regard to the Station Road houses, we note that although the cumulative weekday rating level is +3 above the background sound level, the residual sound level at this location is 11dB higher than the Rating Level, indicating that the proposed cumulative use would not be the dominant source in this location, and that the sound levels here following the development, will be dominated by sound from other sources such as traffic and other commercial activities. We also note that the character and level of the residual sound is due to other commercial sites and road traffic (including a significant number of HGVs). We note also that the overall impact on houses at Station Road is predicted to decrease following the development, due to the addition of barriers and relocation of existing plant on the site. Further to this it is noted that the houses off Station Road were developed after the waste processing site came into operation, with the waste processing license for the site granted in 1992 and the houses off Station Road granted planning permission on the site of a former factory then indoor go-kart track in October 1999. As such the houses on Station Road will have been developed with appropriate treatment to the facades and outdoor areas to mitigate against the noise from the recycling operations. Taking into account the above, the impact of the proposed new wash plant and increase in throughput on the houses on Station Road is likely to result in a positive impact due to the reduction in the existing sound levels.

With regard to the Moss Lane houses, we note that the cumulative rating level is +3 dB above the background sound level, this indicates impact which below the level of an adverse impact, depending on context. We note that the residual sound level at this location is 8dB higher than the cumulative Rating Level, indicating that the proposed use is not likely to be significantly audible for the majority of the time, and that the sound levels here following the development, will be dominated by sound from other sources such as traffic and other commercial activities. We also note that the character and level of the residual sound is due to other commercial sites and road traffic (including a significant number of HGVs). As such the proposed addition of the wash plant and increase in throughput is unlikely to be discernible at the houses off Moss Lane. Further to this it is noted that the houses off Moss Lane were developed after the waste processing site came into operation, with the waste processing license for the site granted in 1992 and the houses off Moss Lane granted planning permission on the site of a former HGV manufacture and servicing business in October 2015. As such the houses off Moss Lane will have been developed with appropriate treatment to the facades and outdoor areas to mitigate against the noise from the recycling operations.

With regard to the houses west of the railway line, we note that the predicted cumulative rating level is +13 dB above the background sound level, this indicates a significant adverse impact, depending on context. We note that the residual sound level at this location 8dB higher than the cumulative Rating Level, indicating that the proposed use is significantly audible for much of the time and that the dominant sound source at these houses is that due to train passes on the Crewe-Manchester rail line. In terms of the new wash plant and increase in throughput, this is below the level of adverse impact, depending on context, and is unlikely to result in any perceivable difference in the character of the sound at this location and the overall impact remains the same following the development as the current operations. Further to this it is noted that the houses west of the railway line were developed after the waste processing site came into operation, with the waste processing license for the site granted in 1992 and the houses west of the railway line granted planning permission on the site of a former HGV manufacturer in May 2015. As such the houses west of the railway line, in accordance with planning policy, will have been developed with treatment to the facades and outdoor areas to mitigate against the noise from the recycling operations. We also note that the houses will be mitigated against the much higher sound levels due to the railway line between these houses and the site. Taking into account the above, the impact of the proposed new wash plant and increase in throughput on the houses west of the railway line is likely to result in a low impact.

9.0 IMPACT OF OPERATION AFTER CONTEXT

The impact of the proposed increase in throughput and new wash plant, after context is taken into account, is positive (reduction in overall impact) at houses off Station Road, and neutral (no change in impact) at houses off Moss Lane and west of the railway line. As such, the overall impact of the proposal on residential amenity is low.

10.0 UNCERTAINTY

BS4142 indicates that an assessment of noise impact should consider uncertainty within the assessment. This uncertainty can arise from: uncertainty in measurements; uncertainty in sound emission and sound power level; and uncertainty in calculation method.

10.1 Uncertainty in Measurements

It is noted that the instrumentation used for the assessment conform to Class 1 accuracy in accordance with IEC 61672. In addition, the instrumentation has been calibrated to national standards and were field calibrated at the time of the measurements. The measurements of background were undertaken on the boundary of the nearest residential receivers.

We would therefore consider that the effect of uncertainty on the measurement of background sound would be minimal.

10.2 Uncertainty in Sound Power Levels

The noise emission vehicle movements and the frequency spectrum of a typical wash plant has been measured in-situ in normal operation using instrumentation conforming to Class 1 accuracy in accordance with IEC 61672. The propagation model was calibrated to ensure that the measured values were predicted at the measurement locations.

Measurements have been carried out in a conservative manner and we would therefore consider that the uncertainty of the determination of the source sound powers would be minimal, and generally be conservative (more likely to overpredict rather than underpredict the sound power of the considered sources).

10.3 Uncertainty in Calculation Method

It is noted that the calculations have been undertaken utilising a known prediction method and have utilised the standard ISO 9613. In addition calculations have been undertaken utilising commercial prediction software. We note that the ISO 9613 method assumes meteorological conditions favourable to noise propagation (in all directions), and for much of the time during operation of the plant we would expect noise propagation to be less favourable (i.e. lower noise) than those predicted herein.

Taking into account of the above, we would consider uncertainty in the results of the assessment due to the calculation method to be low, with the calculations being conservative.

11.0 CONCLUSION

At the request of Enviro Skip Hire Ltd, a noise impact assessment has been undertaken relating to the addition of an Aggregate Wash Plant and increase in throughput relating to the existing waste processing operations at Norton Way, Sandbach, CW11 3WL.

Noise surveys have been conducted at locations representative of the nearest noise sensitive properties to the site. The results of the surveys have been used to assess the background sound at the nearest noise sensitive receptors (during a period when operations at the Enviro Skip Hire site were halted) and to determine the likely impact of the new wash plant and reconfiguration of the site layout in terms of noise.

The assessment has been undertaken following the guidance contained within BS4142:2014+A1:2019 – ‘Methods for rating and assessing industrial and commercial sound’.

We have measured the sound levels generated by the existing operations on-site and calculated the impact at nearby noise sensitive properties of the existing permitted operations. We have then undertaken a further modelling exercise to determine the likely noise levels from the proposed operation

of the new wash plant including the increase in throughput, and also calculated the cumulative impact of the existing operations plus the new wash plant (including the proposed changes in the layout of the site, and proposed changes to boundary treatments).

The impact of the proposed increase in throughput and new wash plant, after context is taken into account, is positive (reduction in overall impact) at houses off Station Road, and neutral (no change in impact) at houses off Moss Lane and west of the railway line. As such, the overall impact of the proposal on residential amenity is low.

APPENDIX A – DEFINITION OF ACOUSTIC TERMS

The decibel

This is the basic unit of noise, denoted dB.

A Weighting

This is a weighting process which simulates the human ear's different sensitivity at different frequencies. A weighting can be shown two typical ways, 50 dB(A) L_{eq} or 50 dB $L_{Aeq.}$ Both mean the same thing. (See below for a definition of L_{eq}). The dB(A) level can be regarded as the overall level perceived by human beings.

L_{eq} and $L_{eq(s)}$

This is the equivalent continuous noise level which contains the same acoustic energy as the actual time-varying sound. In other words it is a kind of average noise level. It is denoted dB L_{eq} or, for A-weighted figures dB(A) L_{eq} or dB L_{Aeq}. It can also be expressed in terms of frequency analysis (see later). $L_{eq(s)}$ is the sample L_{eq} level.

L_n

This is the level exceeded for n% of the time. It is denoted dB L_n or, for A-weighted figures dB(A) L_n or dB $L_{An.}$ It can be expressed in terms of frequency analysis (see later). L_{90} is the level exceeded for 90% of the time and is a measure of the lowest level typically reached. L_{10} is the level exceeded for 10% of the time and is the highest level typically reached. L_{50} is the level exceeded for 50% of the time and, mathematically, it is the median.

L_{max}

This is the maximum level reached during a measurement period. The "time constant", or the ability of the equipment to respond to impulses is usually expressed along with it, e.g. "Fast", "Slow", etc. It is denoted dB L_{max} or, for A-weighted figures dB(A) $L_{max,}$ dB $L_{Amax,}$ etc. It can also be expressed in terms of frequency analysis.

Frequency Analysis

Whereas dB(A) gives a very useful overall figure, it has its limitations in that it cannot be used to model or predict the effect of noise control and mitigation as this nearly always has radically different performance at different frequencies.

Frequency analysis expresses an overall noise level at each frequency or band of frequencies in the audible range. Octave band analysis divides the audible range into 10 bands from 31.5 Hz to 16 kHz and the noise level in each band can be expressed in any form e.g. L_{eq}, L_{90}, L_{max} etc. One third octave band analysis uses 30 bands.

Narrow band analysis takes the process to resolutions of less than 1 Hz. This is useful for identifying the existence of tones (whines, hums, etc.) and in pin-pointing the sources.



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